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Guide to Test Interpretation



Indiana Department of Education

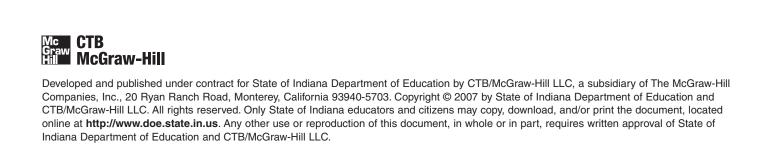
GQE Retest

Spring 2007

School Year 2006-2007







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A Message from Dr. Suellen Reed

May 2007

Dear Educators:

The *Guide to Test Interpretation* (GTI) provides important information to aid you in interpreting your students' test scores. Greater understanding of the results will help you better communicate them to other educators, parents, students, and community members.

The spring 2007 administration of *ISTEP+* measured the performance of Indiana's students against Indiana's highly acclaimed Academic Standards. The standards are clear, concise, and jargon-free, and they are clearly more rigorous than those on which assessments were based prior to 2002. In addition to parent/student and teacher's editions of the standards, Curriculum Frameworks have been made available to educators to support their classroom activities.

The 2002 test data serve as the baseline for Indiana in meeting the mandate contained in the No Child Left Behind Act of 2001—having 100 percent of students proficient in English and Mathematics by the school year 2013–2014. This mandate intensifies the need to interpret test data thoroughly and accurately. Students' weaknesses and strengths, as identified by the test results, should serve as the basis for making informed decisions about individual students' instructional needs.

Many activities may occur at the local level with the release of this test data. Program evaluations, research-based activities, and a strong communication effort within school buildings and school communities alike can help facilitate improvement. Emphasizing the significance of this data and fostering the involvement of parents and stakeholders in a continuous improvement model will help us move farther and faster toward the goal of 100 percent proficiency by 2013–2014.

We expect the *Guide to Test Interpretation* will be helpful to you and will strengthen your knowledge of *ISTEP+* and its results.

Sincerely,

Dr. Suellen Reed

Superintendent of Public Instruction

Dr. Suellen Reed

Understanding ISTEP+ Test Results

What can you learn from *ISTEP+*?

Taxpayers, parents, and educators ask many questions about instructional programs as Indiana strives to build a brighter future by providing the best possible education for its young people. Questions such as the following are commonly asked:

"Are all of our students attaining the skills they need to succeed?"

"What kind of individual instruction would help my child?"

ISTEP+ provides information that will help you answer such questions and support the instructional choices you make for your students. *ISTEP+* reports can quickly show you the following:

- To what extent an individual student has mastered the Indiana Academic Standards in the English/language arts and Mathematics content areas.
- To what extent the students as a group, in your classroom, school, and corporation, are attaining mastery of Academic Standards.
- Where the students in your classroom, school, or corporation stand relative to the three performance levels established by the State Board of Education. (See page 7 for more information about performance levels.)

What is a criterionreferenced score?

ISTEP+ is a criterion-referenced test. It consists of items that assess a student's performance with respect to particular criteria—in this case, to the Indiana Academic Standards established by the State Board of Education. The test does not provide norm-referenced information; that is, it does not compare the performance of Indiana students with that of students across the nation. Criterion-referenced scores indicate where a student stands in relation to the established Indiana Academic Standards. These scores are developed based on Item Response Theory (see page 6). The most valuable application of criterion-referenced information is to identify a student's strengths and needs in order to plan appropriate instruction.

Criterion-referenced scores are presented by Academic Standard within each content area, as follows:

Criterion-Referenced Score Categories				
Content Area	English/language arts	Mathematics		
Academic Standards	3.1 Reading Vocabulary 3.2 Reading Comprehension	3.1 Number Sense 3.2 Computation		
	:	:		

Understanding ISTEP+ Test Results

Item Response Theory

Item Response Theory (IRT) refers to the theory underlying a family of statistical models. These statistical models analyze the data obtained from test questions, or items. For the *ISTEP+* tests, two models are used. One is used for the multiple-choice items, and another is used for the open-ended items.

The two models are used in combination with test data to characterize items and generate student scale scores. Both models use the data to determine how difficult each item is and how well each item accurately identifies students who do and do not have the skill being tested by the item. The multiple-choice model also describes the degree to which students can guess the correct answer to each item.

Pattern Scoring

The statistical characteristics of the items can affect a student's total test score (scale score). This is particularly true with *ISTEP+* because it is pattern scored. Pattern scoring incorporates information from items using the IRT model. In contrast, raw scoring or number-correct scoring simply notes whether or not the student answered the item correctly. Both pattern scores and raw scores can be considered ability scores used to represent a student's ability level. To illustrate the differences between pattern scoring and raw scoring, consider two students, Student 1 and Student 2, who both correctly answer 20 items. Student 1 answers the 20 most difficult items, while Student 2 answers the 20 easiest. With raw scoring, both students receive the same raw (ability) score, indicating both students have the same "ability," and the highest raw score possible is equal to the total number of items on a test. In contrast, when the pattern of the items answered correctly is taken into account—that is, when the information about the difficulty of the items (among other item characteristics) is considered—Student 1 rightly receives a higher ability score.

Scale Scores

When ability scores are placed on a scale different from the raw score or number-correct scale, they are called "scale scores." The ability scores are transformed and placed onto a scale, much like taking a degree of temperature on the Celsius scale and transforming it onto the Fahrenheit scale. How hot or cold the temperature is does not change. What does change is the scale used to describe the temperature. In the same way, ability scores can be described by different scales and still maintain their meaning as an indication of ability.

Direct comparisons of individual student scores should not be made across content areas. For example, a score of 185 in English/language arts does not mean the same thing as a score of 185 in Mathematics. Also, minor fluctuations in a student's score from year to year should not be used as the sole source for making high-stakes decisions about a student's progress. Be sure to note where most students are performing—i.e., the mean. If the student performs below the mean one year and above the mean the next, it is likely the student is making progress, compared to same-grade peers. Because of the variability in scores from year to year, it is also very important to consider the student's overall performance level (Pass+, Pass, or Did Not Pass).

Understanding ISTEP+ Test Results

Cut Scores and Performance Levels

The No Child Left Behind Act (NCLB) is federal legislation that requires that student achievement be reported in terms of at least three performance levels. One of these performance levels is designated as the proficient level. Each state must determine the number of performance levels to use, as well as the meaning associated with those levels. For the GQE Retest, the *ISTEP+* test scale is divided into three performance levels using two cut scores. The cut score is the score that separates two performance levels. Based on their *ISTEP+* scale score, students are placed into one of three performance levels: Pass+, Pass, and Did Not Pass. For Indiana students, the performance level labeled "Pass" is the proficient level.

Each performance level has a descriptor: a description of what students can do in terms of the content and skills measured by *ISTEP+*. By examining the descriptor for a level in which a student has been placed, teachers, parents/guardians, and the student can gain an understanding of the student's current knowledge of a particular content area. Performance level information can be used to help plan individual instructional goals for the student.

In addition, an "Undetermined" category is reported for any student whose *ISTEP+* scores for English/language arts and/or Mathematics are incomplete (i.e., all or part of a test was not taken or was considered invalid by the examiner).

Academic Standards Scores

Indiana's Academic Standards are listed by content area on the Student Report, the Class Academic Standards Report, and the Group Academic Standards Summary.

The Indiana Performance Index (IPI) is used to indicate a student's performance on the Academic Standards. This is a statistical value that reflects the number of items a student would have answered correctly if the student had responded to 100 similar items for the specific Academic Standard on the test. It is a better measure of the student's performance than a simple percentage of correct answers to a small number of questions.

The Student Report shows each Academic Standard as well as the Student Score (based on the IPI), the Score Needed for Passing, and the difference between the two scores.

The Class Academic Standards Report indicates whether students have mastered each Academic Standard. Symbols appear on this report indicating 1) mastery, 2) non-mastery, or 3) whether a subtest was invalid or omitted. Mastery of an Academic Standard indicates that the Student Performance is equal to or greater than the passing level for a student at the standard.

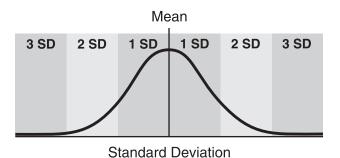
The corporation Group Academic Standards Summary provides a summary of students' performance for all schools in the corporation.

Mean and Median Scores

On *ISTEP+* reports, summary information for a group (such as a class) is often presented using mean or median scores. The mean is the average score obtained by adding together all scores in the group and dividing by the number of students in the group. The median is the middle score. (Fifty percent of the scores fall below it.)

Standard Deviation

The standard deviation (SD) indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within two SDs of the mean. In almost any shaped distribution, all scores will be within five standard deviations of the mean score.



The ISTEP+ Testing Program for the GQE Retest

Reports for the GQE Retest

This guide will help you understand *ISTEP+* test results and report forms more clearly and, using those results, provide educational opportunities for students more effectively. The guide will also help you be better prepared to answer questions from parents, students, and other members of the educational community regarding *ISTEP+* results. Toward this end, a Sample Letter to Parents specific to the GQE Retest is included on page 47 for your use.

The spring GQE Retest will be reported by three performance levels: Pass+, Pass, and Did Not Pass.

Each *ISTEP+* report is designed to clearly present the most useful information for you and for your discussions with parents. The audience for each report and the number of copies provided are listed in the table below.

ISTEP+ Report Information			
Report	Number of Copies		
For Teachers			
Student Report	3		
Proficiency Roster	1		
Class Academic Standards Report	1		
Undetermined Status Roster	2		
For School Administrators			
Proficiency Roster	1		
Academic Standards Summary (corporation)	1		
GQE Required Retest List	1		
Disaggregation Summary Report	1		
Pass/Retest Label	1		
Applied Skills Frequency Distribution	1		
For Corporation Administrators			
Proficiency Roster (school)	1		
Academic Standards Summary (corporation)	1		
Group Academic Standards Summary (corporation)	2		
Disaggregation Summary Report (school)	1		
Disaggregation Summary Report (corporation)	2		
Applied Skills Frequency Distribution (school)	1		
Applied Skills Frequency Distribution (corporation)	1		
Undetermined Status Roster (school)	1		
Academic Standards Frequency Distribution (corporation)	1		

The ISTEP+ Testing Program for the GQE Retest

GQE Retest students must take both the Multiple-Choice and Applied Skills sections of the GQE Retest for each content area they have not yet passed.

Note: Failure to return both the completed Multiple-Choice answer booklet and Applied Skills test book(s) will result in a student receiving a status of "Undetermined" on the GQE Retest.

Copies of student answers to the open-ended items, as they appeared in the Applied Skills test books, will be returned to teachers to assist them in reviewing the students' performance. Teachers may use these papers, in conjunction with information in the *ISTEP+ Teacher's Scoring Guides*, to further evaluate each student's strengths and needs. Three copies of the Student Report are included in the score report package. One copy is in the shrink-wrapped folder marked "Student RPT for Image." This copy is to be used with the student's imaged responses to the Applied Skills Assessment.

The *ISTEP+* score reports are packaged by school and corporation, and they are shrink-wrapped to prevent damage during handling. Student reports for Braille tests are shipped separately.

Before you can interpret and apply the information in the reports, you must understand the meaning of the scores presented. If you are unfamiliar with *ISTEP+* or the testing and scoring terms, please review the previous section in this guide, "Understanding *ISTEP+* Test Results." You will also find a glossary specific to the GQE Retest beginning on page 44.

Sample Letter to Parents

To help teachers explain the *ISTEP+* reports to parents, a Sample Letter to Parents specific to the GQE Retest is provided on page 47. You may duplicate or edit the letter to make it appropriate for your use.

Report Labeling

The GQE Retest reports will have margin labels reading "GQE RETEST."

Note: All sample reports shown in this guide contain simulated student data only.

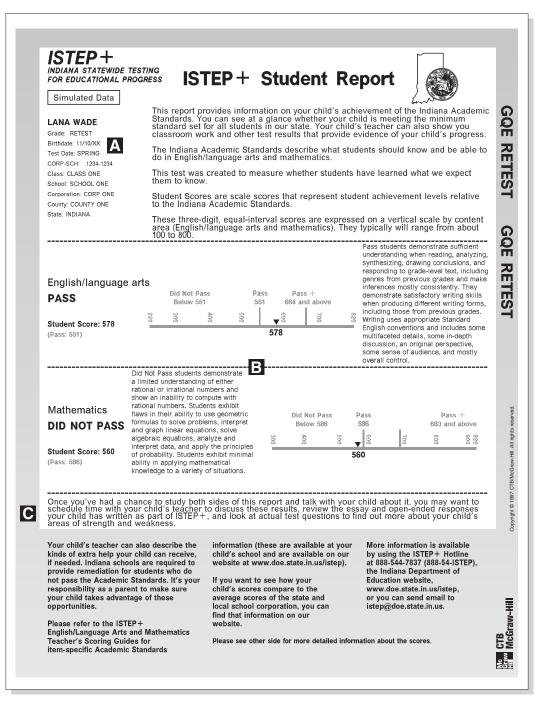
Student Report (front)

The Student Report is designed to clearly communicate student performance. The front of the report shows the Student Score and whether the student is placed in the Pass+, Pass, or Did Not Pass performance level in each content area. The three performance levels were established by the Indiana Board of Education. (See page 7 for an explanation of performance levels.) Students whose scores place them in the Pass+ or Pass performance level meet the Indiana Academic Standards. The front of the report also provides guidance to parents who may want to obtain more information or assistance for their child. Three copies of this report are provided. Two copies are for school use and one copy is for the parent(s).

Note: All sample reports shown in this guide contain simulated student data only.

Sample Student Report

The sample Student Report presents results for Lana Wade, a retest student who took the *ISTEP+* test. The middle section of this page describes Lana's performance as measured against the Indiana Academic Standards, and it shows her achievement for each content area as a three-digit Student Score. The score required to pass the Indiana Academic Standards in English/language arts is 551. Lana's score of 578 means she passed the Indiana Academic Standards for that content area. The score required to pass in Mathematics is 586. Lana's score of 560 means she did not pass the Indiana Academic Standards for that content area.

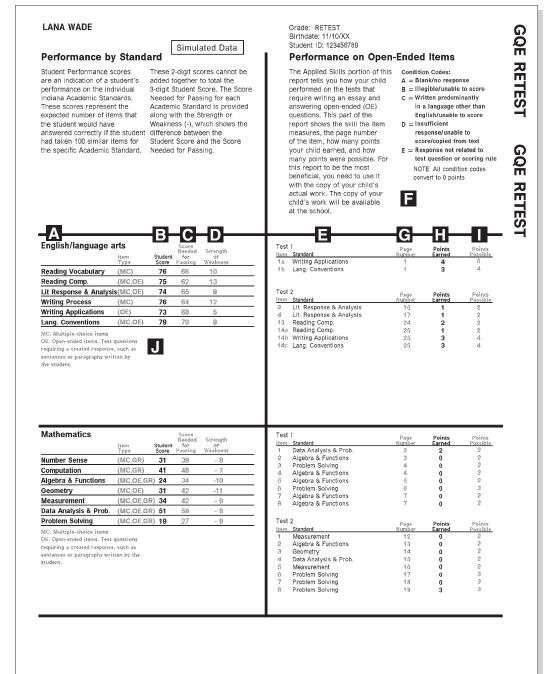


Highlights of the Student Report (front)

- A Identifies the student's name, grade, and birth date. Indicates the test date and identifies the corporation-school number, class, school, corporation, county, and state.
- **B** Explains the student's performance relative to the cut scores established by the Indiana State Board of Education.
- **C** Provides information for parents.

Student Report (back)

The back of the Student Report details Performance by Standard and Performance on Open-Ended Items. On the left side of the page, each Academic Standard is listed along with the item type, the Student Score, the Score Needed for Passing, and the difference between the Student Score and the Score Needed for Passing (Strength or Weakness). Reading to the right of the first Academic Standard, Reading Vocabulary, you will see that Lana achieved a Student Score of 76 as compared with the Score Needed for Passing, which is 66. Lana's score is 10 points higher than the Score Needed for Passing.



On the right side of the page, the points earned by the student for each open-ended item are listed, along with the points possible for each item in each test. One can observe on this simulated report, for example, in the English/language arts section, Test 1, that item 1a, Writing Applications, is located on page 1 of the test book and that Lana scored four points out of six points possible for this item. This report should be used in conjunction with the *Teacher's Scoring Guides* and the imaged student responses to help the teacher explain the scores and the scoring process. Imaged student responses will be returned to the schools in May 2007.

Highlights of the Student Report (back)

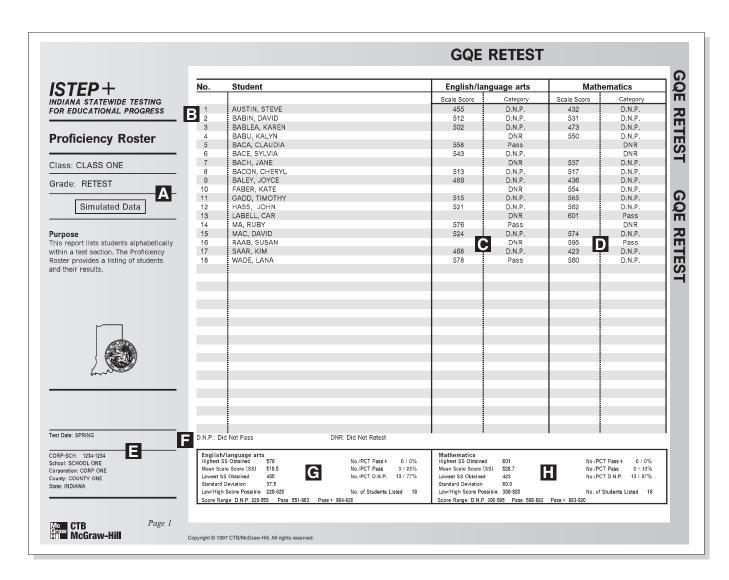
- A Lists Academic Standards, grouped by content area.
- **B** Shows the Student Score for each Academic Standard.
- C Indicates the Score Needed for Passing each Academic Standard.
- D Shows the difference (+ or −) between the Student Score and the Score Needed for Passing for a student at the standard.
- **E** Lists each open-ended item and its Academic Standard by content area and test session.
- **F** Explains the condition codes.
- **G** Indicates the page on which each item appears in the test book.
- H Indicates the number of score points that the student earned for each open-ended item or, if no score, the letter of the condition code.
- I Shows the number of points possible for each open-ended item.
- **J** Defines the abbreviations used in this report.

Proficiency Roster

This report lists all students in the class alphabetically and tells the teacher how each student performed in the content areas of English/language arts and Mathematics. Also shown is the scale score for each student in each of the content areas.

In the lower portion of the report, summary information is given for the class as a whole. Shown for each of the two content areas are the lowest and highest scale scores obtained by the students in the group, the class average (mean scale score), the standard deviation, and the lowest and highest possible scores.

The group's performance is also compared to the cut scores to show the number and percentage of students scoring at the Pass+, Pass, and Did Not Pass performance levels.



Highlights of the Proficiency Roster

- A Identifies the class and grade.
- **B** Lists students alphabetically within the class.
- Provides each student's scale score and performance level (category) within the English/language arts content area.
- Provides each student's scale score and performance level (category) within the Mathematics content area.
- E Indicates the test date and identifies the corporation-school number, school, corporation, county, and state.
- **F** Defines the symbols and abbreviations used in this report.
- **G** Provides English/language arts summary information for the class.
- **H** Provides Mathematics summary information for the class.

Class Academic Standards Report

The Class Academic Standards Report provides Academic Standards information for all the students in your class on a single report. It presents mastery information for each student and summarizes the performance of the class as a whole.

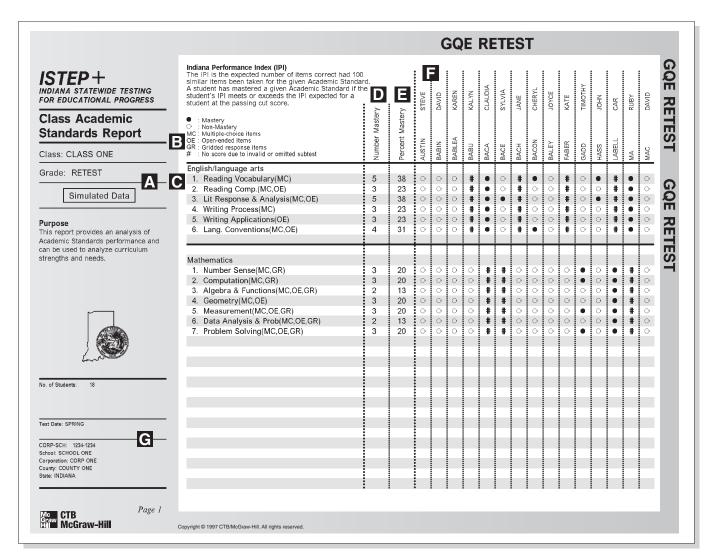
Academic Standards Information

The name of each student in the class appears in alphabetical order across the top of the report. The column below the student's name presents mastery information for that student. The Academic Standards for the grade appear on the left side of the report.

To the right of each Academic Standard the following information appears:

- the number of students who mastered the Academic Standard and
- the percentage of students who mastered the Academic Standard.

You can use this information to identify areas in which students may need additional instruction.

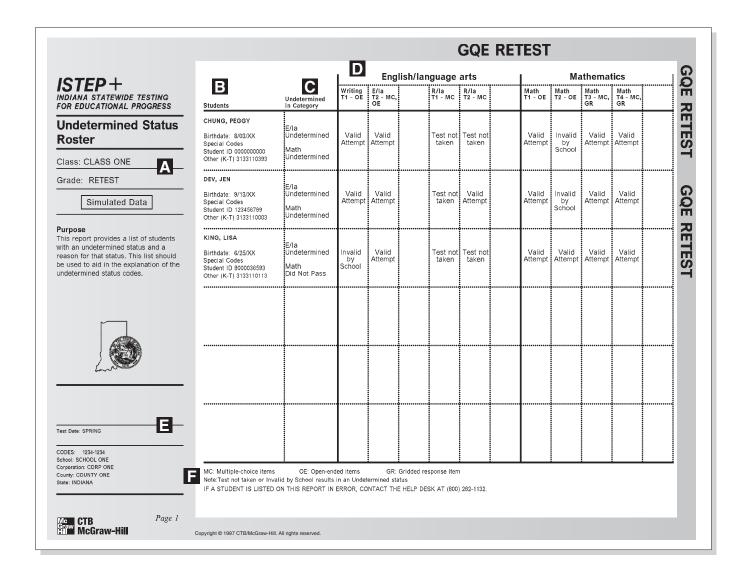


Highlights of the Class Academic Standards Report

- A Identifies the class and grade.
- **B** Defines the symbols and abbreviations used in this report.
- C Lists Academic Standards for the grade.
- **D** Shows the number of students who mastered each Academic Standard.
- **E** Shows the percentage of students who mastered each Academic Standard.
- **E** Lists students alphabetically by name from left to right.
- G Indicates the number of students and test date, and identifies the corporation-school number, school, corporation, county, and state.

Undetermined Status Roster

This report lists alphabetically all students in the class who have an "Undetermined" status. Students who fail to complete one or more subtests in English/language arts or Mathematics are listed as "Undetermined." This report indicates whether the subtest was not taken or was invalidated, thus explaining the reason for the "Undetermined" status.



Highlights of the Undetermined Status Roster

- A Identifies the class and grade.
- **B** Lists alphabetically students who have an "Undetermined" status in English/language arts and/or Mathematics.
- C Indicates whether the "Undetermined" status is in English/language arts and/or Mathematics.
- **D** Indicates which subtest was invalidated or not completed.
- Indicates the test date and identifies the school, corporation, county, and state.
- **F** Defines symbols and abbreviations used in this report.

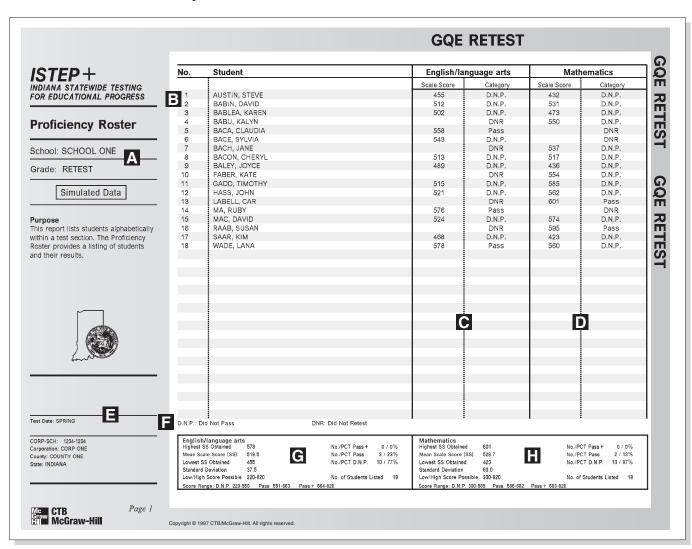
Note: All sample reports shown in this guide contain simulated student data only.

Proficiency Roster

This report lists alphabetically all GQE Retest students in the school by grade and tells the principal how each student performed in the content areas of English/language arts and Mathematics. Also shown is the scale score for each student in each of the content areas.

In the lower portion of the report, summary information is given for the school as a whole. Shown for each of the two content areas are the lowest and highest scale scores obtained by the students in the group, the class average (mean scale score), the standard deviation, and the lowest and highest possible scores.

The group's performance is also compared to the cut scores to show the number and percentage of students scoring at the Pass+, Pass, and Did Not Pass performance levels.

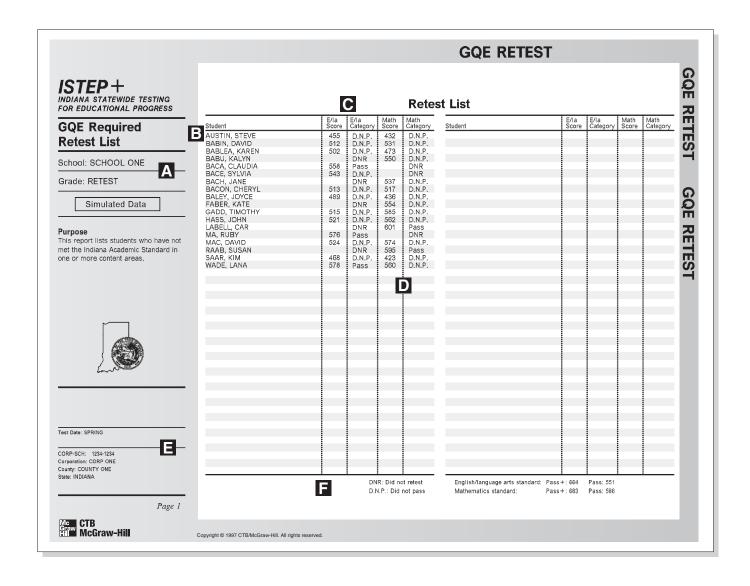


Highlights of the Proficiency Roster

- A Identifies the school and grade.
- **B** Lists students alphabetically within the school for the grade tested.
- Provides each student's scale score and performance level within the English/language arts content area.
- Provides each student's scale score and performance level within the Mathematics content area.
- E Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- **E** Defines the symbols and abbreviations used in this report.
- **G** Provides English/language arts summary information for the school.
- **H** Provides Mathematics summary information for the school.

GQE Required Retest List

This report lists alphabetically those students who fell below the standard established for the spring GQE Retest in either English/language arts or Mathematics or in both content areas. It also shows the performance category and scale score for each student in each of the content areas.

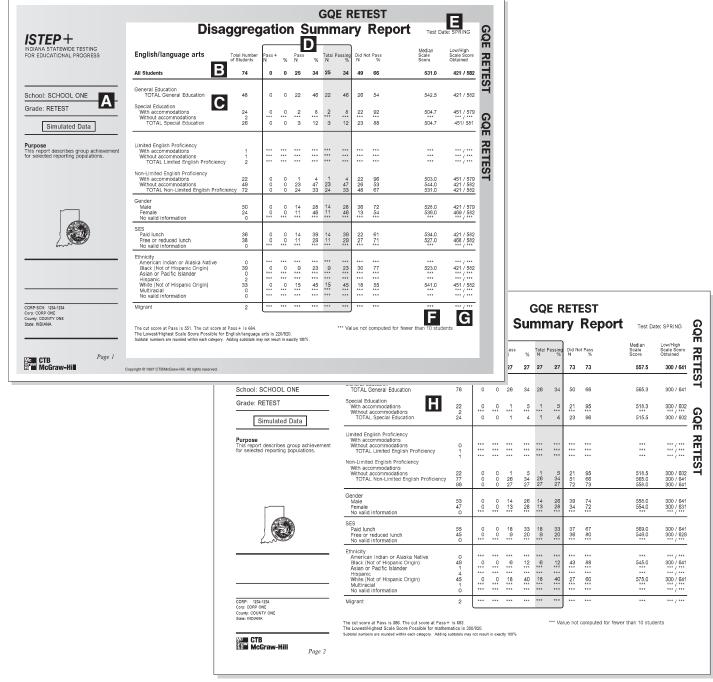


Highlights of the GQE Required Retest List

- A Identifies the school and grade.
- **B** Lists students alphabetically within the school who need to take the GQE Retest in one or more content areas.
- **C** Provides each student's scale score and performance level within the English/language arts content area.
- Provides each student's scale score and performance level within the Mathematics content area.
- **E** Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- **F** Defines the symbols and abbreviations used in this report.

Disaggregation Summary Report

The Disaggregation Summary Report consists of two pages, one for English/language arts and one for Mathematics. This report presents, by content area, the total number of students with scores identified as passing with high achievement (Pass+), passing (Pass), and not passing (Did Not Pass). This information is given at the group level and describes achievement for selected reporting populations.

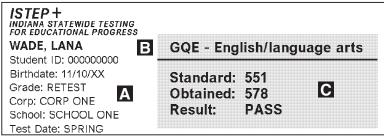


Highlights of the Disaggregation Summary Report

- A Identifies the school, grade, corporation-school number, corporation, county, and state in the left column.
- **B** Provides the total number of students.
- C Identifies the reporting populations in the English/language arts content area.
- D Indicates the number and percentage of students who obtained Pass+, Pass, or Did Not Pass scores. The Total Passing column indicates the total number of students in the Pass+ and Pass columns.
- **E** Indicates the test date.
- Indicates the median scale scores, which are not computed for groups with fewer than 10 students.
- **G** Indicates the lowest and highest scale scores obtained.
- **H** Identifies the reporting populations in the Mathematics content area.

Pass/Retest Labels

An individual white label is provided for each student and for each content area. These student labels indicate the student's status relative to meeting the standard in English/language arts and Mathematics. Separate labels are provided for each content area passed and for each content area not passed. Labels will also be provided for students who did not retest or who received an Undetermined status in one or both content areas.



ISTEP +
INDIANA STATEWIDE TESTING
FOR EDUCATIONAL PROGRESS

WADE, LANA
Student ID: 000000000
Birthdate: 11/10/XX
Grade: RETEST
Corp: CORP ONE
School: SCHOOL ONE
Test Date: SPRING

RETEST REQUIRED

GQE - Mathematics

Standard: 586
Obtained: 560
Result: DID NOT PASS

Retest label

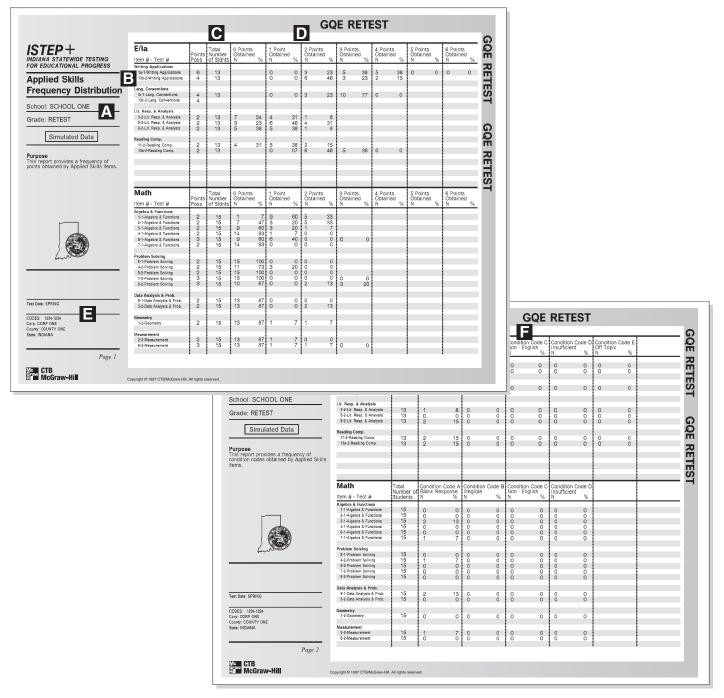
Pass label

Highlights of the Pass/Retest Labels

- A Identifies student information, grade, corporation, school, and test date.
- **B** Identifies the content area.
- C Indicates the standard established by the Indiana State Board of Education, the score obtained by the student, and the performance level achieved.
- D Identifies whether the student needs to retest based on the student's results in one or both content areas.

Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents, at the school level, the number and percentage of students who obtained each score point for the individual Applied Skills items. This information can be used to determine if the students in your school show strengths or needs on specific Applied Skills items and, therefore, in the Academic Standards that are assessed by these items.



Highlights of the Applied Skills Frequency Distribution

- A Identifies the school and grade.
- **B** Identifies the item number and the standard(s) being scored. Descriptions of each item, along with scoring rubrics and standards, are found in the *ISTEP+Teacher's Scoring Guides*.
- Lists the total number of students tested in the school. The total number of students is obtained by adding the "N" counts in D and F.
- **D** Lists the number and percentage of students obtaining each score point.
- **E** Indicates the test date and identifies the corporation, county, and state.
- Lists by condition code the number and percentage of students who did not receive a score.

Condition Codes

- A = Blank/no response
- B = Illegible/unable to score
- C = Written predominantly in a language other than English/unable to score
- D = Insufficient response/unable to score/copied from text
- E = Response not related to test question or scoring rule (English/language arts only)

If the writing prompt receives any of these condition codes **except condition code E**, the student will receive an "Undetermined" status for English/language arts.

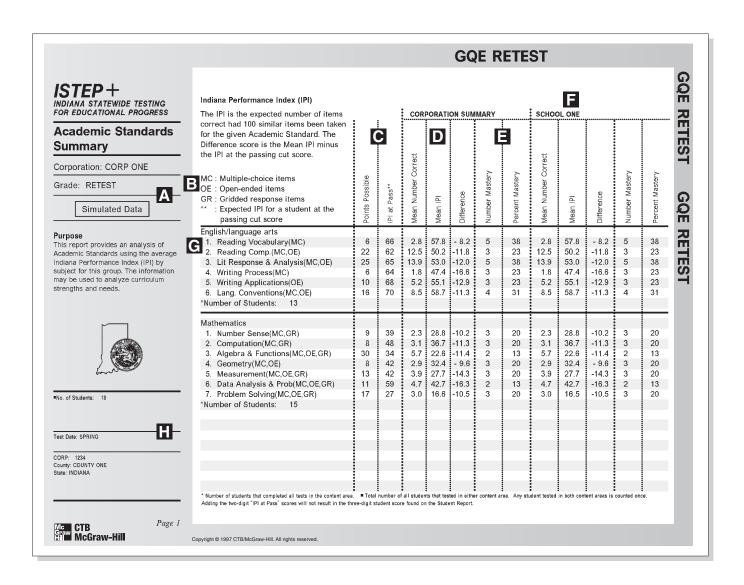
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Reports for the Corporation Administrator

Note: All sample reports shown in this guide contain simulated student data only.

Academic Standards Summary

The corporation Academic Standards Summary provides criterion-referenced information from the *ISTEP+* achievement tests, summarizing the performance of students for an individual school by grade. Schools may contact their Corporation Test Coordinator to request a copy of this report.



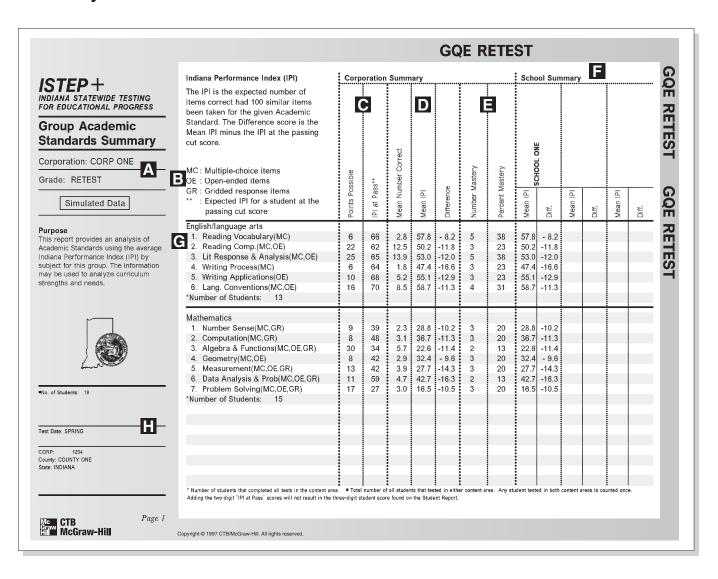
Highlights of the Academic Standards Summary

- A Identifies the corporation and grade.
- **B** Defines the symbols and abbreviations used in this report.
- Shows the number of score points that assess each Academic Standard and lists the Indiana Performance Index (IPI) at the standard.
- Lists the mean number of score points obtained by the students in the corporation by grade, the mean IPI obtained by the students, and the difference between the mean and standard IPI for each Academic Standard.
- Lists the number of students and the percentage of students who obtained mastery of each Academic Standard (i.e., achieved an IPI at or above the standard).
- **F** Identifies the name of an individual school (one school per page).
- **G** Lists Academic Standards for the grade.
- H Indicates the number of students and test date and identifies the corporation number, county, and state.

Note: A second copy of this report is included in the School Administrator package.

Group Academic Standards Summary

The corporation Group Academic Standards Summary provides criterion-referenced information from the *ISTEP+* achievement tests, summarizing the performance of students for each school by grade.

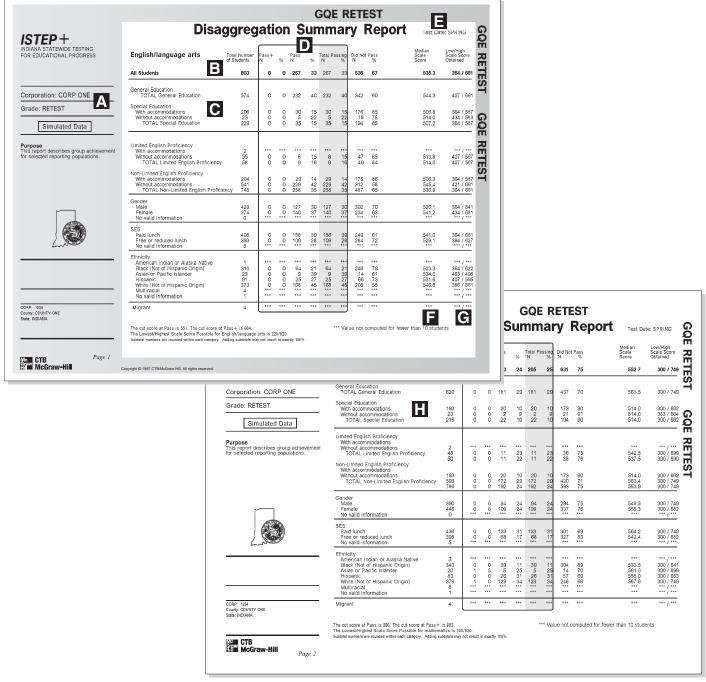


Highlights of the Group Academic Standards Summary

- A Identifies the corporation and grade.
- **B** Defines the abbreviations used in this report.
- Shows the number of score points that assess each Academic Standard and lists the expected Indiana Performance Index (IPI) at the passing cut score.
- Lists the mean number of score points obtained by students in the corporation by grade, the mean IPI obtained by students, and the difference between the mean IPI and the IPI at the passing cut score.
- Lists the number of students and the percentage of students who obtained mastery of each Academic Standard (i.e., achieved an IPI at or above the standard).
- **E** Lists schools alphabetically by name from left to right.
- **G** Lists Academic Standards for the grade.
- Indicates the number of students and test date and identifies the corporation number, county, and state.

Disaggregation Summary Report

The Disaggregation Summary Report consists of two pages, one for English/language arts and one for Mathematics. This report presents, by content area, the total number of students with scores identified as passing with high achievement (Pass+), passing (Pass), and not passing (Did Not Pass). This information is given at the group level and describes achievement for selected reporting populations.

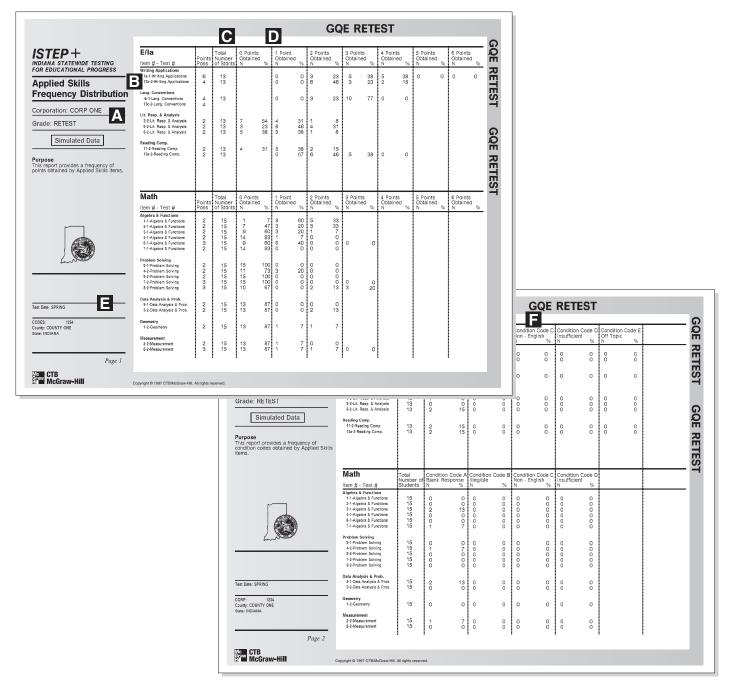


Highlights of the Disaggregation Summary Report

- A Identifies the corporation, grade, corporation number, county, and state in the left column.
- **B** Provides the total number of students.
- C Identifies the reporting populations in the English/language arts content area.
- D Indicates the number and percentage of students who obtained Pass+, Pass, or Did Not Pass scores. The Total Passing column indicates the total number of students in the Pass+ and Pass columns.
- **E** Indicates the test date.
- Indicates the median scale scores, which are not computed for groups with fewer than 10 students.
- **G** Indicates the lowest and highest scale scores obtained.
- H Identifies the reporting populations in the Mathematics content area.

Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents, at the corporation level, the number and percentage of students who obtained each score point for the individual Applied Skills items. This information can be used to determine if students in the corporation show strengths or needs on specific Applied Skills items and, therefore, in the Academic Standards that are assessed by these items.



Highlights of the Applied Skills Frequency Distribution

- A Identifies the corporation and grade.
- Identifies the item number and the standard(s) being scored. Descriptions of each item, along with scoring rubrics and standards, are found in the *ISTEP+Teacher's Scoring Guides*.
- **C** Lists the total number of students tested in the corporation. The total number of students is obtained by adding the "N" counts in D and F.
- **D** Lists the number and percentage of students obtaining each score point.
- **E** Indicates the test date and identifies the county and state.
- **E** Lists by condition code the number and percentage of students who did not receive a score.

Condition Codes

- A = Blank/no response
- B = Illegible/unable to score
- C = Written predominantly in a language other than English/unable to score
- D = Insufficient response/unable to score/copied from text
- E = Response not related to test question or scoring rule (English/language arts only)

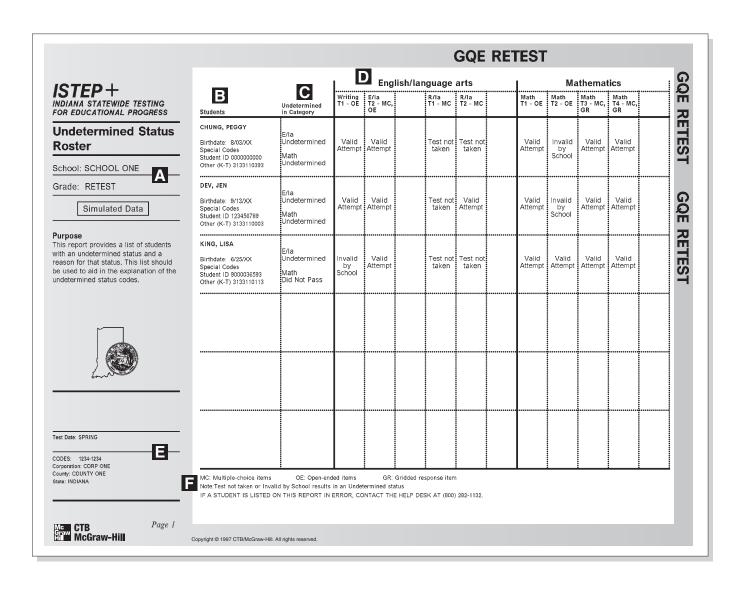
If the writing prompt receives any of these condition codes **except condition code E**, the student will receive an "Undetermined" status for English/language arts.

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Reports for the Corporation Administrator

Undetermined Status Roster

This report lists alphabetically by school all students in the corporation who have an "Undetermined" status. Students who fail to complete one or more subtests in English/language arts or Mathematics are listed as "Undetermined." The report indicates whether the subtest was not taken or was invalidated, thus explaining the reason for the "Undetermined" status.

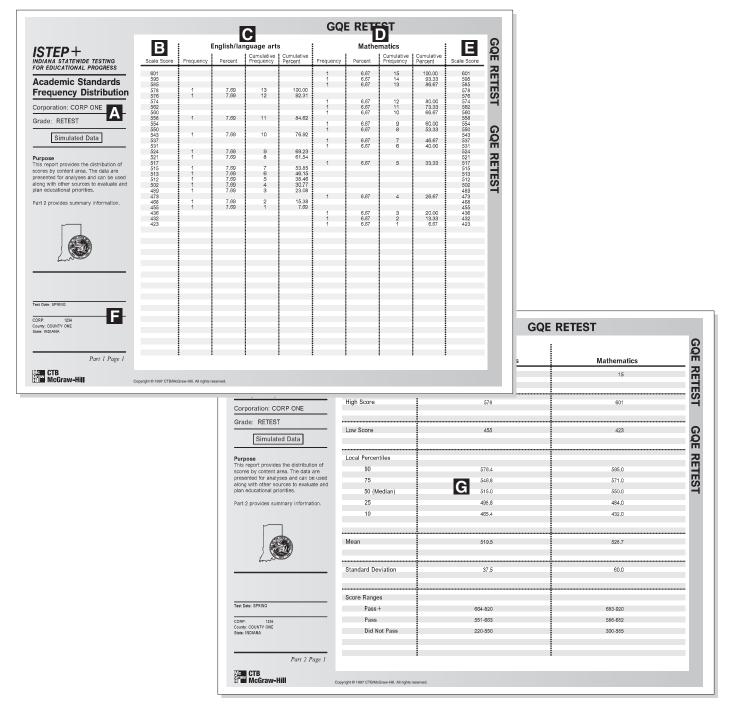


Highlights of the Undetermined Status Roster

- A Identifies the school and grade.
- **B** Lists alphabetically students who have an "Undetermined" status in English/language arts and/or Mathematics.
- C Indicates whether the "Undetermined" status is in English/language arts and/or Mathematics.
- **D** Indicates which subtest was invalidated or not completed.
- **E** Indicates the test date and identifies the corporation, county, and state.
- **F** Defines symbols and abbreviations used in this report.

Academic Standards Frequency Distribution

The Academic Standards Frequency Distribution report provides the corporation administrator with the distribution of scale scores achieved by all the students tested in the corporation. The data are presented for analysis and can be used, along with other resources, to evaluate and plan educational priorities.



Highlights of the Academic Standards Frequency Distribution

- A Identifies the corporation and grade.
- **B** Lists the scale scores achieved on the English/language arts test.
- Shows the number and percentage of students who achieved each scale score on the English/language arts test.
- D Shows the number and percentage of students who achieved each scale score on the Mathematics test.
- **E** Lists the scale scores achieved on the Mathematics test.
- Indicates the test date and identifies the corporation number, county, and state.
- G Indicates the scale scores achieved by students at five local percentiles (90, 75, 50, 25, and 10).

Reference

Glossary

Criterion-Referenced Test

A test that reports students' scores relative to the Indiana Academic Standards.

Cut Scores

Cut scores are scale scores that separate and define the performance levels. The cut scores define three general levels of knowledge and skill as follows:

Pass+: The student who scores at or above the Pass+ cut score in English/language arts and/or Mathematics is high-achieving in these subjects.

Pass: The student who scores at or above the Pass cut score in English/language arts and/or Mathematics demonstrates proficiency in these subjects.

Did Not Pass: The student who scores below the cut score in English/language arts and/or Mathematics may require remedial assistance to be successful at the current grade level.

In addition, a category referred to as "Undetermined" is for learners whose *ISTEP+* scores for English/language arts and/or Mathematics are incomplete. For these students, all or a part of the test was not taken or was considered invalid by the examiner.

Indiana Academic Standards

To promote student academic achievement, the Indiana State Board of Education has adopted challenging standards. These standards are defined by a description of what a student should know and be able to do at the grade level completed by the student during the previous school year. The standards for English/language arts include Reading Vocabulary, Reading Comprehension, Literary Response and Analysis, Writing Process, Writing Applications, Language Conventions, and Listening and Speaking. Because the latter standard does not lend itself to a paper-and-pencil test, it is not currently being assessed by *ISTEP+*. The standards for Mathematics include Number Sense, Computation, Algebra and Functions, Geometry, Measurement, and Problem Solving.

Glossary

Indiana Performance Index (IPI)

The Indiana Performance Index is an indication of a student's performance on the individual Academic Standards that are measured by *ISTEP+*. It represents the expected number of items that the student would have answered correctly if the student had taken 100 similar items for the specific Academic Standard.

Indiana Scale Score

Student achievement levels relative to the Indiana Academic Standards are reported by *ISTEP+* scale scores. These three-digit, equal-interval scores are expressed on a vertical scale by content area (English/language arts and Mathematics). *ISTEP+* scale scores typically will range from about 100 to about 800.

Mean

The mean is the arithmetic average of a group of scores. It is calculated by adding the scores and dividing the sum by the number of scores.

Median

The median is the score below which 50% of cases fall. The median and the 50th percentile are the same.

Number-Correct Scoring

A scoring procedure that involves adding up students' scores on the test questions in a test.

Pattern Scoring

A procedure for assigning students' scale scores that involves considering the pattern of students' scores on the questions in a test as well as certain statistical characteristics of the questions.

Performance Levels

For *ISTEP+*, student achievement is reported in terms of three performance levels: Pass+, Pass, and Did Not Pass.

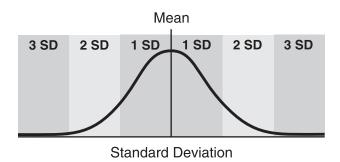
Raw Score

A student's observed score on a test, i.e., the number correct. While raw scores do have some usefulness, they should not be used to make comparisons between performances on different tests, unless other information about the characteristics of each test is known.

Glossary

Standard Deviation (SD)

A statistic that indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within two SDs of the mean. In almost any shaped distribution, all scores will be within five SDs of the mean score.



Standardized Test

A test administered in accordance with explicit directions for uniform administration.

Test Section

A subtest of a given content area.

Undetermined

A scoring category for students whose *ISTEP+* English/language arts and/or Mathematics scores are incomplete (i.e., all or part of the test was not taken or was considered invalid by the examiner).

Sample Letter to Parents

Dear Parent:

All public school students who are eligible to participate are required to meet the GQE Retest standard in order to qualify for a state-recognized diploma. Students are provided with five opportunities to pass this test—in the fall of Grade 10 and in the fall and spring of Grades 11 and 12.

Your son or daughter participated in the *ISTEP+* Spring 2007 GQE Retest administration in English/language arts and/or Mathematics. A Student Report is available for your review.

The front of the Student Report shows how your student did compared to the Indiana Academic Standards. The standards are the required skills that schools must teach to their students. This report shows whether your student scored at the Pass+, Pass, or Did Not Pass performance level on the English/language arts and Mathematics parts of the test.

The back of the Student Report shows how your student did on each of the English/language arts or Mathematics standards and how your student did on each of the Applied Skills items. These are the questions that require students to write a paragraph or write the answer to a question instead of simply choosing the answer to a multiple-choice question. Your student's answers to these Applied Skills items will be available for your inspection at the school in May 2007.

Your student's school is the best source of information if you have questions about your student's *ISTEP+* scores.

Sincerely,



The **McGraw·Hill** Companies

Guide to Test Interpretation

GQE Retest

Spring 2007

School Year 2006-2007



Indiana Department of Education